

在影响,对平衡性的影响尤为明显;(4)自修复材料对轮胎的滚动阻力影响很小。

由以上影响推断,在自修复轮胎开发过程中,自修复材料配方开发及自修复轮胎生产工艺尤为重要,为避免自修复轮胎发生涂层堆积以及轮胎均匀性和平衡性异常,应该在自修复产品开发中注意以下几个方面:(1)自修复材料必须具备适应夏季高温和冬季严寒的能力;(2)喷涂自修复材料时,在满足轮胎自修复能力的前提下,合理设计自修复材料涂层厚度和宽度,避免涂层厚度和宽度过大造成轮胎高速运转时自修复材料堆积影

响车辆安全性;(3)降低自修复材料对轮胎均匀性和平衡性的影响。

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## Effect of Self-healing Material on Tire Performance

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**Abstract:** The effects of the width and thickness of the self-healing material coating on the weight, high-speed performance, durability, uniformity and balance of the self-healing tire were studied, and the effect of the self-healing material on the rolling resistance of the tire was further studied. The results showed that after spraying the self-healing material, the tire weight increased by 14%~18%. If the width and thickness of the self-healing coating were too large, the self-healing material would accumulate seriously, thus affecting the high-speed performance of the self-healing tire. There was a significant impact of the self-healing material on the balance of the tire, and the impact of the self-healing material on the rolling resistance was small. On the premise of meeting the self-healing performance of the tires, the thickness and width of the self-healing coating should be reasonably designed to reduce its influence on the tire performance.

**Key words:** self-healing tire; weight; high-speed performance; durability; uniformity; balance; rolling resistance

### 米其林销售额大增

日前,米其林正式发布2022年第3季度财报。财报显示,米其林2022年前三季度的销售额同比增长20.5%,达到207亿欧元。

米其林表示,销售额增长得益于积极的汇率效应和价格上涨。尽管受到乘用车原配胎和替换胎业务组合的影响,457.2 mm(18英寸)及以上乘用车轮胎和矿用轮胎的销售依旧取得了0.9%的增长。值得一提的是,米其林集团非轮胎业务也延续良好势头,销售额增长22%。此外,米其林收购法

国电商平台Allopeus带来了1.0%的销售额增长。

财报指出,2022年的轮胎市场发展总体趋势向好,大多数地区的市场需求呈稳定发展态势。在销售需求方面,得益于第3季度北美和中国原配胎市场迎来复苏,乘用车和轻载轮胎市场同比增长1.4%。受到亚洲进口额上升的综合性影响,替换胎市场保持稳定。除此之外,载重轮胎市场业务增长6%,以矿用轮胎为代表的特种轮胎市场表现亮眼,第3季度呈现较强上升动力。

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